

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Conf. No.: 9253
)	
Geywitz et al.)	
)	
Application No.: 10/588,651)	Group Art Unit: 3655
)	
Filed: August 7, 2006)	Examiner: LEWIS
)	
For: Method for controlling the engine of)	
a motor vehicle having a manual)	
transmission)	

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Sir:

This is an appeal from the final rejection mailed December 08, 2009. The fee of \$510.00 set forth in 37 C.F.R. § 41.20(b)(2) is paid by credit card. Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account 14.1437. Please credit any excess fees to such account.

REAL PARTY IN INTEREST

The real party in interest is Audi AG of Ingolstadt, Germany

RELATED APPEALS AND INTERFERENCES

To the best of the undersigned's knowledge, there are no related interferences or judicial proceedings.

STATUS OF CLAIMS

- Claims 1 – 14 are rejected are pending in the application.
- No claims are canceled.
- No claims are withdrawn.
- Claims 5 – 7 are allowed.
- No claims are subject to restriction and/or election requirement.
- Claims 1 – 3, and 8 – 14 are rejected.
- An objection to claim 4 is pending.
- The rejection of claims 1 – 3 and 8 – 14 are being appealed.

STATUS OF AMENDMENT

The Advisory action mailed March 12, 2010 did not address the amendments proposed after the final rejection mailed December 08, 2009. The proposed amendments merely sought to delete reference characters from the claims. For purposes of this paper, it is assumed that the amendments were not entered.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 relates to a method for controlling the engine of a motor vehicle

having a manual transmission,¹ wherein when at least one approval criterion is satisfied for an engine torque (M)² which is dependent on the driving state of the vehicle,³ a default engine torque (M_v) which can be reduced⁴ relative to a setpoint engine torque (M_s) required by the position of an accelerator of the vehicle is stipulated,⁵ and wherein the default engine torque (M_v) is determined⁶ as a function of at least one engine characteristic (n, Q).⁷

The independent claims involved in the appeal are claims 1 and 5. Independent claim 5 and claims 6 and 7, which depend from claim 5 are allowed. All other claims are dependent from independent claim 1. Summary of the subject matter of the dependent claims is omitted as unnecessary.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether the Office action erred in rejecting:

- I. Claims 1, 8 – 10 and 14, citing 35 U.S.C. §103(a), U.S. 6,258,008 to Tabata et al. (hereinafter, “Tabata”) and U.S. 6,000,376 to Hess et al. (hereinafter, “Hess”);
- II. Claims 2, 3, 11, and 12, citing 35 U.S.C. §103(a), Tabata, Hess, and 5,078,109 to Yoshida et al. (hereinafter, “Yoshida”); and
- III. Claim 13, citing 35 U.S.C. §103(a), Tabata, Hess, and U.S. 6,742,498 to Mabuchi et al. (hereinafter, “Mabuchi”).

¹ See specification at p. 1.

² See specification at pp. 4 – 7, and Figure 1.

³ *Id.*

⁴ *Id.*

⁵ *Id.*

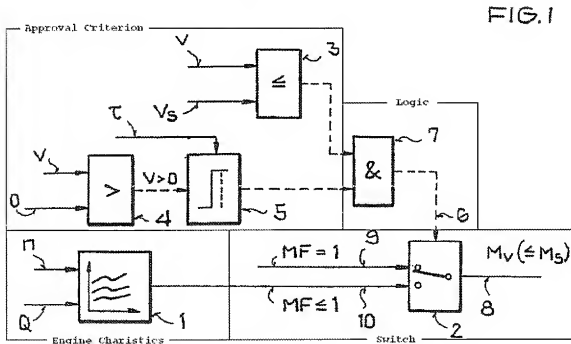
⁶ *Id.*

⁷ *Id.*

ARGUMENT

- I. The rejection of claims 1, 8 – 10 and 14, citing 35 U.S.C. §103(a), Tabata, and Hess should be reversed.

Claim 1 is directed to a method for controlling the engine of a motor vehicle having a manual transmission, “when at least one approval criterion is satisfied for an engine torque” Nothing occurs according to the present invention unless at least one approval criterion is satisfied for an engine torque. As illustrated in Figure 1, reproduced below, the approval criterion can be, for example, the start-up or initial rolling of the vehicle. In other words, whether the driving speed v is greater than 0. This can be checked at comparator 4. Comparator 3 can check whether a speed threshold v_s , for example 35 km/hr, is reached. Only when all approval criteria are met, does logic element 7 deliver a signal to the switching element 2.



Appellants also respectfully note, according to the claimed invention, the approval criterion is a function of engine torque, because independent claim 1 includes the phrase “when at least one approval criterion is satisfied for an engine torque”

At column 3, lines 14 – 16, Hess explains, “the basic idea of the invention is that a torque desired value, which is present, is separated into a desired value for the charge path and the ignition angle path.” Hess does not provide any approval criterion. According to Hess operating variables are supplied to the control unit 10 via input lines 20, 22, and 24 to 26. The operating variables can include a desired torque value, a signal representing a degree of actuation β , engine speed, engine load, and engine temperature (See column 2, lines 36 – 55). These operating variables are not approval criterion and are never compared to approval criterion. According to Hess, the operating variables are merely separated into a desired torque value for the charge path and a desired value for influencing the metering of fuel and/or the ignition angle. Since Hess does not provide any approval criterion, Hess clearly does not provide an approval criterion that is a function of engine torque.

The Office action asserted, “Miact corresponds to the claimed engine torque and the operating variables sent to the ECU corresponds [sic] to the criterion.” Appellants respectfully disagree. Figure 6c of Hess merely shows a time dependent trace of the actual torque (Miact) to illustrate the effect of Hess’s invention. The operating variables sent to control unit 10 are not approval criterion. As discussed above, Hess does not provide any approval criterion.

The Advisory action mailed March 12, 2010, misconstrues appellants’ arguments, the claims, and the issue, stating,

Claim 1 doesn’t recite what the ‘approval criterion’ has to be, i.e., start-up or initial rolling of the vehicle, as argued by applicant. Therefore, this limitation is being interpreted broadly and can be met by the operating variables sent to the ECU in Hess’s art. These variable[s] have to provide a specific value/measurement (corresponding to claimed approval criteria [sic]) in order for the ECU to determine if engine torque control is going to be by the air supply or fuel/ignition angle.

As discussed above, the operating variables, according to Hess, are merely separated into a desired torque value for the charge path and a desired value for influencing the metering of fuel and/or the ignition angle. The operating variables sent to control unit 10 are not approval criterion. Nor does Hess teach comparing the operating

variables to any approval criterion. Furthermore, the Examiner has not even addressed the claim requirement that the approval criterion must be a function of engine torque.

Tabata is not cited to compensate for the shortcomings of Hess.

- II. The rejection of claims 2, 3, 11, and 12, citing 35 U.S.C. §103(a), Tabata, Hess, and Yoshida should be reversed.

Tabata, and Yoshida are not cited to compensate for the above-discussed shortcomings of Hess.

- III. The rejection of claim 13, citing 35 U.S.C. §103(a), Tabata, Hess, and Mabuchi should be reversed.

Tabata, and Mabuchi are not cited to compensate for the above-discussed shortcomings of Hess.

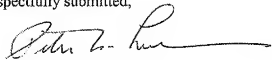
CONCLUSION

The rejections are in error and should be reversed.

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CLAIMS APPENDIX:

1. Method for controlling the engine of a motor vehicle having a manual transmission, wherein when at least one approval criterion is satisfied for an engine torque (M) which is dependent on the driving state of the vehicle, a default engine torque (M_v) which can be reduced relative to a setpoint engine torque (M_s) required by the position of an accelerator of the vehicle is stipulated, and wherein the default engine torque (M_v) is determined as a function of at least one engine characteristic (n , Q).
2. The method as claimed in claim 1, wherein the approval criterion is the driving speed (v) of the vehicle, and wherein the default engine torque (M_v) is stipulated depending on at least one engine characteristic (n , Q) when a speed threshold (v_s) for the driving speed (v) of the vehicle is not reached.
3. The method as claimed in claim 2, wherein the default engine torque (M_v) is stipulated only after recognition of a start-up process of the vehicle depending on at least one engine characteristic (n , Q).
4. The method as claimed in claim 2, wherein an additional approval criterion is a specific delay time (τ) after recognizing the process of the vehicle's starting up, and wherein the default engine torque (M_v) after a delay time (τ) elapses is stipulated depending on at least one engine characteristic (n , Q).
5. Method for controlling the engine of a motor vehicle having a manual transmission, wherein when at least one approval criterion is satisfied for an engine torque (M) which is dependent on the driving state of the vehicle, a default engine torque (M_v) which can be reduced relative to a setpoint engine torque (M_s) required by the position of an accelerator of the vehicle is stipulated, and wherein the default engine torque (M_v) is determined as a function of at least one engine characteristic (n , Q), wherein at least the engine speed (n) and the quotient (Q) of the engine speed (n) and the driving speed (v) of the vehicle are used as engine characteristics for determining the default engine torque (M_v).

6. The method as claimed in claim 5, wherein the default engine torque (M_v) which causes speed limitation of the engine speed (n), is reduced relative to the setpoint engine torque (M_s) when the engine speed (n) exceeds a speed threshold (n_s) and the quotient (Q) of the engine speed (n) and driving speed (v) of the vehicle is within a specific value range.
7. The method as claimed in claim 6, wherein a value of 4600 rpm is stipulated as the speed threshold (n_s) for the engine speed (n).
8. The method as claimed in claim 1, wherein the default engine torque (M_v) is determined by applying a torque factor (M_F) to the setpoint engine torque (M_s).
9. The method as claimed in claim 8, wherein the torque factor (M_F) is determined from a characteristic map.
10. The method as claimed in claim 1, wherein when the default engine torque (M_v) deviates from the setpoint engine torque (M_s) an action on at least one of the throttle valve, the ignition and the fuel injection of the vehicle is initiated.
11. The method as claimed in claim 2, wherein a value in the range from 25 km/h to 40 km/h is stipulated as the speed threshold (v_s) for the driving speed (v) of the vehicle.
12. The method as claimed in claim 11, wherein a value of 35 km/h is stipulated as the speed threshold (v_s) for the driving speed (v) of the vehicle.
13. The method as claimed in claim 1, wherein the default engine torque (M_v) in idling of the vehicle is stipulated for acoustically influencing the engine noise.
14. The method as claimed in claim 1, wherein the default engine torque (M_v) in the process of the vehicle's starting up is stipulated for avoiding damage to the clutch of the vehicle.

EVIDENCE APPENDIX:

None.

RELATED PROCEEDINGS APPENDIX:

None.